

REMARKS

This responds to the final Office Action dated June 2, 2004. In the Office Action, claims 3-7, 9-16, 20-24, 26 and 28 were rejected under 35 U.S.C. § 102 (e) as being anticipated by U.S. Pat. 6,459,263 to Hawkes et al. ("Hawkes") and claims 8, 17, 25 and 27 were indicated to be allowable if rewritten in independent form. In response, applicant amended claims 3, 12, 20 and 26 as indicated above. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

First, applicant wishes to thank Examiner Vargas for careful consideration of this application and the indication of patentability of claims 8, 17, 25 and 27. Applicant believes that the amendments to the independent claims 3, 12, 20 and 26 place this application in a condition for allowance.

With respect to the Section 102 (e) rejection, applicant respectfully submits that amended claims 3, 12, 20 and 26 are patentable over the Hawkes reference at least because Hawkes does not disclose averaging of a single time-domain signal, as recited in the independent claim 3, as well as the time-domain averaging of a single NMR echo train, as recited in the independent claims 12, 20 and 26.

More specifically, Hawkes does not disclose time-domain averaging of a single signal, i.e., a signal that is received in a single data acquisition. In contrast, what Hawkes teaches is multi-signal averaging technique, known as echo stacking. The echo stacking technique is illustrated in Figs. 3 and 4 of this application, which also show the difference between the time-domain averaging of a single signal (recited in claim 3, 12, 20 and 26 of the present application) and the multi-signal data averaging (taught by Hawkes). In fact, the only reference to signal averaging appears in Hawkes at column 9, lines 34 through 41:

A typical NMR measurement is obtained by signal averaging a number of data acquisitions to improve the signal to noise ratio. In the case of motion containing one or more periodic components, using the output of the predictive filter, each of those data acquisitions can be triggered when the NMR tool is in approximately the same position, stationary or in the same state of motion, and the data averaged to improve the signal to noise ratio. (emphasis added).

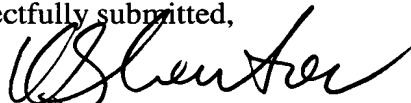
Clearly, the above passage discloses echo stacking technique involving "averaging a number of data acquisitions," rather than a very different technique of averaging of a single time-domain signal, as recited in claims 3, or the time-domain averaging a single NMR echo train, as recited in claims 12, 20 and 26. Accordingly, applicant respectfully submits that claims 3, 12, 20 and 26, as well as claims dependent thereon, are patentable over Hawkes.

Conclusion

Understanding that this Office Action is final, applicant respectfully requests to enter the above claim amendments into the record of the present application because they are believed to put this application in a condition for allowance. Should the Examiner have any questions or comments concerning this submission, or any aspect of the application, the Examiner is invited to call the undersigned at the phone number listed below.

Date: October 1, 2004

Respectfully submitted,



38,051

Ognjan V. Shentov

(Reg. No.)

JONES DAY

222 East 41st Street

New York, New York 10017

(212) 326-3939